

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	§	Docket No.: 16356.578 (DC-02701)
Konetski, David et al.	§	
	§	
Serial No.: 09/771,095	§	Customer No. 27683
	§	
Filed: January 26, 2001	§	Group Art Unit: 2157
	§	
For: SYSTEM AND METHOD FOR	§	Examiner: Dalencourt, Yves
USING RESOURCES OF A	§	
COMPUTER SYSTEM IN	§	Conf. No.: 7695
CONJUNCTION WITH A	§	
THIN MEDIA CLIENT	§	

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner of Patents and Trademarks
Alexandria, VA 22313

Dear Examiner:

We, David Konetski and Shannon Christopher Boesch, hereby declare that:

1. We are co-inventors of the subject matter of the above patent application as therein described and claimed.
2. At all times set forth herein, we were employed as engineers with Dell Inc. (hereinafter "Dell") in Austin, Texas. Dell Products L.P. is the assignee of the above-identified application by assignment filed on January 26, 2001, and recorded at Reel 011490, Frame 0324.
3. Prior to December 22, 2000, we conceived of the subject matter of the present invention, as disclosed in Exhibit A and submitted to the Dell Patent Department for processing of a patent application.
4. Any dates prior to December 22, 2000 have been removed from the attached Exhibit.
5. On November 9, 2000, Dells' legal department forwarded the above invention disclosure to Dell's outside counsel, the law firm of Haynes and Boone, LLP (hereinafter "H&B") for preparation of a patent application.
6. On January 26, 2001, the above-identified patent application was filed with the United States Patent and Trademark Office under Serial No. 09/771,095.
7. At no time were our activities regarding disclosure of our invention in the above-identified patent application ever suspended. We diligently moved toward disclosing our invention by filing the above referenced application.

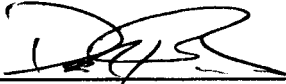
Ser. No. 09/771,095
Declaration Under 37 CFR 1.131

Attorney Docket No. 16356.578 (DC-02701)

8. Based on the foregoing facts, we conceived the invention prior to December 22, 2000 and were diligent in preparing the above referenced application for filing on January 26, 2001.

9. We declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified patent application or document or any patent issuing therefrom.

We declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on August 13, 2007.



David Konetski

Shannon Christopher Boesch

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David Konetski



Shannon Christopher Boesch

Ser. No. 09/771,095
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Attorney Docket No. 16356.578 (DC-02701)

EXHIBIT A

Dell Invention Disclosure form which is attached.

DELL CONFIDENTIAL

DC-02701

Received: **[REDACTED]**

INVENTION DISCLOSURE FORM

(Rev. 8/30/1999)

INSTRUCTIONS:

- Make sure all blanks in the form are **completely** filled out. Incomplete forms **will not be processed**.
- Please refer to actual calendar dates, not Dell Fiscal Year dates.
- Have all inventors electronically "sign" the form at the end by simply typing in the name and date in the pertinent blanks at the end of the form (no pen or pencil necessary).
- Have two (2) witnesses "sign" in the same fashion.
- Keep the overall disclosure size reasonably small so it is suitable for electronic transmission; when submitting drawings or photos with the disclosure please import them from .JPG files, which use compression internally.
- Send completed disclosure in Word format **via e-mail** to Benjamin Solomon at Dell Legal.

IMPORTANT! - If you know for a fact that your idea was embodied in a product offered for sale more than a year ago, then please tell us now; otherwise you will have to refund your invention award to the company at a later date.

***** (please do not modify the document above this line) *****

INVENTION TITLE:

(Brief and descriptive)

Method and apparatus for utilizing PC based memory, storage, and processing power to enhance the functionality and cost performance of thin audio and video clients.

INVENTORS:

(Must be filled out completely)

(Copy below for each additional inventor, changing 2nd Inventor to 3rd Inventor, etc.)

1 st Inventor Full Legal name: <u>David Konetski</u>			Employee No.: <u>14657</u>	
Cost Center:	<u>1000-81371</u>	SSN: <u>207-56-6234</u>	Phone Ext.: <u>728-4174</u>	Bldg.: <u>PS2</u>
Home Address:	<u>3509 El Dorado Trail</u>	City: <u>Austin</u>	State: <u>TX</u>	ZIP: <u>78739</u>
Home Phone:	<u>512-292-4125</u>			
Are you a Citizen of the U.S.? <u>Yes</u>		If no, of which country are you a citizen?		
Reporting Director: <u>Bob Petersen</u>			Department: <u>ILOB</u>	
Reporting VP:	<u>Stephan Godevais (TPG)</u>			
<input type="checkbox"/> Check here if inventor is non-Dell				

2 nd Inventor Full Legal name: <u>Shannon Christopher Boesch</u>			Employee No.: <u>27102</u>	
Cost Center:	<u>1000-81372</u>	SSN: <u>417-25-5255</u>	Phone Ext.: <u>723-1104</u>	Bldg.: <u>PS2</u>
Home Address:	<u>205 Parque Vista Drive</u>	City: <u>Georgetown</u>	State: <u>TX</u>	ZIP: <u>78626</u>
Home Phone:	<u>512-869-2596</u>			
Are you a Citizen of the U.S.? <u>Yes</u>		If no, of which country are you a citizen?		
Reporting Director: <u>Bob Petersen</u>			Department: <u>ILOB</u>	

LINE OF BUSINESS:

Please select the business line to which your invention is *MOST CLOSELY RELATED*

If you do not know to which business line your invention is most related, please select the line of business to which you belong.

- ☐ Dimension
- ☐ Optiplex
- ☐ Inspiron
- ☐ Latitude
- ☐ Servers
- ☐ Workstations
- ☐ Webster
- ☐ Storage
- ☐ Dell On-Line
- ☐ Software
- ☐ Manufacturing
- ☐ Other

(Please explain) _____

Code name of Dell Product in which invention is or will be incorporated: Mercury, Jukebox III

COMPLETE WRITTEN DESCRIPTION OF INVENTION:

*Prepare a written description of your invention using the outline below. Just fill in the blank after each topic. Adjust the amount of space for each topic as needed. **Be sure to include any sketches, diagrams, flow charts, drawings, prints, etc. which will aid in understanding the invention.***

COMPLETE WRITTEN DESCRIPTION OF INVENTION:

*Prepare a written description of your invention using the outline below. Just fill in the blank after each topic. Adjust the amount of space for each topic as needed. **Be sure to include any sketches, diagrams, flow charts, drawings, prints, etc. which will aid in understanding the invention.***

a) THE PROBLEM;

Each client located on a home network must duplicate the memory, storage, and processing resources described above. If only one client is utilized at a time, the resources in the unused clients are wasted. A method to centralize resources for multiple clients would provide a better utilization of resources. Each of these resources also become more cost effective per unit with larger quantities of the resource purchased. An example of this is the fact that the cost/GB of hard disk drive storage diminishes as hard drive capacity increases.

b) THE PRIOR METHODS/APPARATUS USED TO SOLVE THE PROBLEM;

Thin client audio and video devices are new, and have no significant history. Other thicker network based audio and video clients, however, require significant amounts of memory, local storage, and processing power to handle digital media being downloaded from the Internet. Memory and processing power are required to download and buffer incoming streams. More processing power is required depending on the type and format of data being downloaded. Highly compressed and encrypted data drive up client processing requirements. Because today's Internet protocol does not support quality of service (QoS) negotiations, client must buffer streaming data in order to compensate for delays caused by the Internet connection. More memory on the streaming clients is required allows larger amounts of data to be buffered prior to being played back for the user. Larger buffers help to smooth over streaming problems related to dropped data packets and random transmission delays. When available Internet bandwidth exceeds the data consumption bandwidth of the client, large buffers enable the client to pre-fetch data until the buffer is full. When the amount of data pre-fetch reaches a certain limit, it becomes more efficient and economical to store buffered data on some sort of persistent storage such as a hard disk drive.

Examples:

Kurbango, Audio Request

c) YOUR PROPOSAL TO SOLVE THE PROBLEM; AND

Dell will use the abundant memory, storage, and processing resources located on a network based personal computer to reduce the memory, storage, and processing requirements of audio and video thin clients. The technology developed to support this will allow thin audio/video clients to provide higher levels of performance while at the same time hitting lower price points than clients that must bear the cost of onboard memory, storage, and process.

Implementations being research by Dell:

PC processing tasks

PC based decryption prior to steaming data to a client

PC based decompression/transcoding prior to streaming data to a client

PC buffering tasks

PC will buffer incoming data streams and then stream data out of the buffer to clients. (i.e. ASF)

PC storage tasks

Non-streaming data (i.e. MP3)

Non-copyright protected streaming data

Artist information, Album information, Playlists Database

d) DRAWING, SKETCH

Dell Products that will incorporate this technology

Dell Digital Audio Receiver Plus - Mercury II (November 2000)

Dell Digital Video Streaming Client (June 2001)

DECLARATION:

The invention described in this invention disclosure is submitted pursuant to my Employment Agreement with Dell Computer Corporation.

SIGNATURES OF INVENTORS:

Inventor(s), please sign your full name(s) and enter the date below:

(1) David Konetski Date:

(2) Shannon Christopher Boesch Date:

(If there are more than 2 inventors, please add more signature lines as appropriate.)

DECLARATIONS BY AND SIGNATURES OF TWO WITNESSES:

Witnesses, please sign and date below:

WITNESS 1

This invention was first explained to the undersigned by the inventor(s) on the day of , / I understood the explanation given by the inventor(s).

Sherry Ray Date:
Signature of Witness 1

WITNESS 2

This invention was first explained to the undersigned by the inventor(s) on the day of , / I understood the explanation given by the inventor(s).

Jonae Wilson Date:
Signature of Witness 2

DELL CONFIDENTIAL

DC-02701

OUTSIDE COUNSEL INSTRUCTIONS and DELL ART

1) PATENT COMMITTEE COMMENTS:

The Patent Committee found novelty in the media application.

The disclosure is directed toward media flow on an IP based network. This effectively makes the Dell PC the center of the universe in a home network setting, for example.

The processing power of the PC is used as the gateway to the internet for thin clients. It was noted that Smart Set Top Boxes do not use IP (internet protocol) as does the disclosure. In a nutshell, Dell will use the abundant memory, storage, and processing resources located on a network based personal computer to reduce the memory, storage, and processing requirements of audio and video thin clients. While broad claims directed to the general media application are expected, please also direct some claims to the product scheduled to ship in November, 2000.

Note: The above is not intended to be final claim language. It is only meant to be a helpful starting point in the claim drafting process.

2) PRELIMINARY PATENTABILITY SEARCH (BY OUTSIDE COUNSEL)

OUTSIDE COUNSEL IS REQUESTED TO PERFORM A PRELIMINARY PATENTABILITY SEARCH AND TO SEND A REPORT TO DELL ATTY VIA E-MAIL.

3) DELL ART SEARCH

The Dell patents/patent applications listed below were found in a key word search of the Dell Patent Docket. They are provided to Outside Counsel for possible use as background in the present patent application. Outside Counsel is requested to consider these Dell patents/applications:

5,642,171 (DC-00336-DLR, Firm: Skjerven, Morrill, 08/255604, Filed:06/08/1994) METHOD AND APPARATUS FOR SYNCHRONIZING AUDIO AND VIDEO DATA STREAMS IN A MULTIMEDIA SYSTEM; Inventors: Donn Baumgartner/Thomas Dye; LOB: Optiplex

6,052,727 (DC-01335-DLR, 16356.293, Firm: Haynes and Boone, 08/958379, Filed:10/27/1997) METHOD OF DISCOVERING CLIENT SYSTEMS ON A LOCAL AREA NETWORK; Inventor: Chandar Kamalanathan; LOB: Optiplex

DC-01959-MPK (M-7658, Firm: Skjerven, Morrill, 09/415305, Filed:10/08/1999) APPARATUS AND METHOD FOR A COMBINATION WINDOWS CE DEVICE AND NOTEBOOK PORTABLE DEVICE; Inventor: Vaughn Watts; LOB: Inspiron

5,896,493 (DC-01208-AEP, M-4512, Firm: Skjerven, Morrill, 08/786169, Filed:01/17/1997) RAID ALGORITHM USING A MULTIMEDIA FUNCTIONAL UNIT; Inventor: Anil Rao; LOB: Servers

Attorneys

600 Congress Avenue Suite 1600 Austin, Texas 78701-3236

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